DRIZORO Construction Products

MAXELASTIC® POLY-F

ALIPHATIC POLY-UREA MEMBRANE, UV-STABLE, FOR WATERPROOFING AND PROTECTION OF CONCRETE AND OUTDOOR AREAS

DESCRIPTION

MAXELASTIC® ***POLY-F*** is a two-component, solvent-free, cold-applied, aliphatic poly-urea membrane. Once applied manually, provides a high performance continuous elastomeric membrane, with total UV-resistance and colour stability, suitable for waterproofing and protection of concrete and outdoor areas.

APPLICATION FIELDS

- UV-protection topcoat on ***MAXELASTIC® POLY***, for all types of roofs, terraces, balconies, etc.
- High abrasion protection on ***MAXELASTIC® POLY*** and other surfaces exposed to wheel traffic or high wearing, such as heliport areas, parking decks, industrial pavements, settlement tanks, etc.
- Protection of polyurethane foam insulation.
- Waterproofing of channels, reservoirs, wastewater treatment plants and other water retaining structures.
- Protective coating on drainage boxes, retaining tanks or areas exposed to spillages and spattering of chemical compounds

ADVANTAGES

- Forms a seamless continuous membrane.
- Very high abrasion and wearing resistance.
- Excellent chemical resistance to water, seawater, wastewater, fuels, grease and oils, de-icing salts, diluted alkali and acid solutions, etc.
- Quicker curing time and opening to service compared to other systems. Allows pedestrian or light traffic at 8 hours, and heavy traffic or water immersion at 24 hours.
- Very good elasticity, tear strength and abrasion resistance.
- Cold applied by manual methods.
- Solvent-free, non-flammable, environmentally friendly.

APPLICATION INSTRUCTIONS

Surface preparation
Surface must be structurally sound, firm, without cement laitance, etc. It must be dry, clean and free of paints, coatings, efflorescence, loose particles, grease, oils, curing agents, form release agents, dust, gypsum, organic growth or any other contaminants that may affect to adhesion. Surface moisture content should not exceed 5 %.

For cleaning substrate, preferably in case of the smooth and/or poorly absorbent substrates, use sand blasting or high-pressure water cleaning methods, not being desirable aggressive mechanical means.

All voids, holes, honeycombs, cavities, tie holes and static cracks without movement, once opened and routed to a minimum depth of 2 cm, must be repaired with the ***MAXREST®*** (Technical Bulletin No. 2). Rebars and other metal elements exposed during the substrate preparation should be cleaned and passivated with ***MAXREST® PASSIVE*** (Technical Bulletin No. 12), while non-structural and surface iron elements must be cut to a depth of at least 2 cm and then covered with ***MAXREST®***.

Expansion joints or cracks subject to movements once opened up and clean, should be treated with a suitable elastomeric sealant of ***MAXFLEX®*** range.

If applied directly on concrete surface, prime previously with one coat of solvent-free epoxy ***MAXEPOX® PRIMER*** (Technical Bulletin No. 174) or water-based epoxy ***MAXEPOX® PRIMER-W*** (Technical Bulletin No. 372), with a consumption of 0,2-0,3 kg/m^2 per coat, depending on substrate porosity. Primer must be perfectly dry, between 24-48 hours depending on temperature conditions, before applying ***MAXELASTIC® POLY-F***.

Application
MAXELASTIC® POLY-F is supplied as a pre-weighed two-component set. Mix both components A and B by mechanical means with an electric drill. It can be applied manually by brush or roller.

Depending on type of use and traffic expected, apply one or two coats in crossed direction, with a drying time of 4-6 hours between coats, depending on weather conditions.

Application conditions
Minimum substrate and application temperature is 10°C. Do not apply with substrate and ambient temperature is at or below 10°C, or when such temperatures are expected to fall below 10°C within 24 hours. Do not apply to frozen or frost-covered surfaces.
Ambient and surface temperature must be at least 3°C higher than dew point. Check relative humidity and dew point before applying in proximities of marine environment.

CONSUMPTION

As single waterproofing membrane: Estimated consumption of ***MAXELASTIC® POLY-F*** is 0,3 kg/m^2 per coat, for a total consumption of 0,6 kg/m^2 in two coats.

As abrasion and UV-protection topcoat: Estimated consumption of ***MAXELASTIC® POLY-F*** is 0,25-0,3 kg/m^2 per coat. Apply one or two coats depending on type of traffic and abrasion expected.

These figures are for guidance and may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on-site to ascertain the total consumption exactly.

IMPORTANT INDICATIONS

Surface moisture content must be below 5 %. Allow substrate to dry enough after rain, water contact, damp, dew, condensation, etc., as well as after washing surface.

For other uses not specified on this Technical Bulletin or further information, consult the Technical Department.

PACKAGING

MAXELASTIC® POLY-F is supplied in pre-weighed two-component sets of 20 kg and 10 kg respectively. It is available in grey color. Other colors under special request.

STORAGE

Six months in its unopened original packaging. Store in a cool, dry and covered place, protected from moisture, frost and direct sunlight, with temperatures between 5°C and 35°C. Storage at temperatures above 35°C may lead to an increase of viscosity.

SAFETY AND HEALTH

MAXELASTIC® POLY-F is not a toxic product but direct contact with skin and eyes must be avoided. Use proper clothes, rubber gloves and safety goggles during application. In case of skin contact, wash affected area with soap and water. In case of eye contact, rinse immediately thoroughly with clean water but do not rib. If the irritation persists, seek medical assistance.

Consult the Material Safety Data Sheet for ***MAXELASTIC® POLY-F***.

Disposal of the product and its packaging should be carried out according to the current official regulations and it is the responsibility of the final user of the product.

TECHNICAL DATA

Product characteristics		
CE Marking, EN 1504-2 Description. Polyurethane coating for protection of concrete. Coating (C). Principles / Methods. Protection against ingress with coating (Principle 1-PI / 1.3) and Moisture control with coating (Principle 2-MC / 2.2)		
	Component A	Component B
Density, (g/cm^3)	1,26 ± 0,1	1,15 ± 0,1
Mixing ratio for A:B by weight, (kg:kg)	2:1	
Pot-life at 20°C, (min)	15-20	
Application and curing conditions		
Minimum application and substrate temperature (ºC)	>10	
Drying time at 20°C, (h)	2-3	
Recoating time at 20°C, (h)	4-6	
Curing time pedestrian or light traffic/ heavy traffic or water immersion, (h)	8 / 24	
Cured product characteristics		
Tensile strength at break, ASTM D-412, (N/mm^2)	25	
Elongation at break, ASTM D-412, (%)	210	
Adhesion on concrete with primer/ on ***MAXELASTIC POLY***, (N/mm^2)	>2,4 / 2,5 (breaks substrate)	
Abrasion resistance, ASTM D-1044, (mg)	75	
Tear resistance, DIN 53515, (N/mm)	80	
Hardness, DIN 53 505, (Shore D)	40-46	
Permeability to water vapour, EN ISO 7783-1/-2, - μ - Classification, S_D (m)	 78962 (Class III) 72 m	
Permeability to water and capillary absorption, EN 1062-3. w (kg/m^2·h^{0,5})	0,002	
Permeability to CO_2, EN 1062-6. - μ - g (g/m^2·d) - S_D (m)	 372424 0,7 344	
Consumption*		
Consumption as waterproofing per coat / total application, (kg/m^2) Consumption as abrasion and UV-protection per coat/ total application (kg/m^2)	0,3 / 0,6 0,25-0,3 / 0,5-0,6	

* These figures are for guidance only and may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on-site to ascertain the total consumption exactly.

GUARANTEE

The information contained in this leaflet is based on our experience and technical knowledge, obtained through laboratory testing and from bibliographic material. ***DRIZORO®, S.A.U.*** reserves the right to introduce changes without prior notice. Any use of this data beyond the purposes expressly specified in the leaflet will not be the Company's responsibility unless authorised by us. We shall not accept responsibility exceeding the value of the purchased product. The data shown on consumptions, measurement and yields are for guidance only and based on our experience. These data are subject to variation due to the specific atmospheric and jobsite conditions so reasonable variations from the data may be experienced. In order to know the real data, a test on the jobsite must be done, and it will be carried out under the client responsibility. We shall not accept responsibility exceeding the value of the purchased product. For any other doubt, consult our Technical Department. This version of bulletin replaces the previous one.

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